

NAME _____**Date** _____

Identify the conic and put it into graphing/standard form. Then find all relevant parts (center, vertices, foci, directrix, a, b, c, radius, endpoints of the latus rectum, slopes of the asymptotes) and graph #s 3- 8.

1. $x^2 - 4y^2 - 2x - 24y - 39 = 0$

2. $x^2 + 9y^2 + 2x - 18y + 1 = 0$

3. $x^2 + y^2 - 6x - 16y + 57 = 0$

4. $9x^2 - y^2 - 18x - 6y - 9 = 0$

5. $9x^2 + 25y^2 + 36x - 150y + 36 = 0$

6. $25y^2 - x^2 = 25$

7. $16x^2 - 9y^2 + 64x + 18y + 199 = 0$

8. $x = \frac{-1}{8}(y-3)^2 + 2$